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Docket No. 55807 (70904)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: S. Okamoto et al.

U.S. SERIAL NO.: 09/835,194

GROUP: 2673

FILED: April 13, 2001

EXAMINER: L. Shapiro

FOR: IMAGE REPRODUCING METHOD, IMAGE DISPLAY APPARATUS  
AND PICTURE SIGNAL COMPENSATION DEVICE

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By: 

Steven M. Jensen

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

RESPONSE TO OFFICE ACTION

Applicants are in receipt of the Office Action dated August 6, 2004 of the above-referenced application. Please amend the application as follows:

Claims 1-9, 11-16, 18-28, 30-38, 40-48, and 50-61 are pending in the application.

As recited in independent claims 1, 16, 22, 38, 42, and 57 of the Applicants' claimed invention, the maximum output brightness becomes smaller as the average signal level increases, thereby improving visibility in a dark portion of an entirely dark image (image having low average brightness) while preventing whiteout and glare caused by an entirely bright image (image having high average brightness), thus improving visibility in a bright portion. Consequently, both the entirely dark image and the entirely bright image can be reproduced as an image having superior visibility (see page 59, lines 4-14 of the specification).

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Claims 1-6, 9, 11, 12, 14, 15, 57-59 and 61 were rejected under 35 USC §103(a) as being unpatentable over U.S. Patent 5,546,134 to Lee in view of Japanese Publication 06-006820 to "Tadashi" and U.S. Patent 6,111,559 to Motomura et al. (hereinafter "Motomura"). Claims 16, 18, 38, and 40 were rejected under 35 USC §103(a) as being unpatentable over U.S. Patent 6,278,436 to Hosoi et al. (hereinafter "Hosoi") in view of Motomura. Claims 8, 22-28, 30-33, 35-37, 42-48, 50-56, and 60 were rejected under 35 USC §103(a) as being unpatentable over Lee, Tadashi, and Motomura in view of U.S. Patent 6,289,162 to Uehara et al. The remaining dependent claims also were rejected on combinations of prior art references. These rejections are respectfully traversed.

Applicants' remarks in the Amendment filed on May 20, 2004 are incorporated by reference herein. As discussed in the previous remarks, Tadashi cannot be combined with Lee to produce the Applicants' claimed invention. The Lee and Tadashi references have been fully rebutted in Applicants' previous remarks.

On page 3 of the Office Action of August 6, 2004, it was stated: "Lee and Tadashi do not show the image is reproduced so that the maximum output brightness becomes smaller as the average signal level increases" (page 3, third paragraph).

In the Office Action, it was alleged that Motomura teaches "the image is reproduced so that the maximum output brightness (in reference equivalent to the luminance of the backlight) becomes smaller as the average signal level (in the reference equivalent to the video signal level) increases" (page 3, fourth paragraph).

However, Motomura does not teach or suggest the maximum output brightness becomes smaller as the average signal level increases.

Motomura is directed to a liquid crystal display device in which luminance is adjusted using a backlight, so that image quality is maintained "even when the video signal level is small" (see column 1, first paragraph and lines 59-63). As shown in FIG. 3, an amplitude detecting

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means 14 detects the amplitude of a video signal (see column 4, lines 62-63). When the video signal amplitude is less than or equal to a predetermined level, the amplification rate of an amplifier 12 is increased, and luminance of a backlight 8 is lowered (see column 4, lines 63-67). The video signal is then transmitted to a liquid crystal driver 5, which supplies the video signal to the pixels of a plasma address liquid crystal display 10 (see column 3, lines 36-40).

In Motomura, the video signal whose amplitude is detected is not an average signal level of pixel signals as recited in the Applicants' claimed invention. In other words, the video signal does not represent an average of the pixels of the liquid crystal display 10.

Therefore, even if Motomura were somehow combined with Lee and Tadashi, the proposed combination would still not teach or suggest the maximum output brightness becomes smaller as the average signal level increases, as recited in the Applicants' claimed invention.

With reference to independent claims 16 and 38, page 9 of the Office Action states: "Hosoi et al. does not show the image is reproduced so that the maximum output brightness becomes smaller as the average signal level increases." Motomura was cited to remedy this deficiency.

However, Motomura does not teach or suggest an image reproducing method or an image display apparatus in which "the maximum output brightness becomes smaller as the average signal level increases" as recited in claims 16 and 38.

Similarly, regarding independent claims 22 and 42, Motomura does not teach or suggest an image display apparatus or a picture signal compensation device in which "the maximum output brightness becomes smaller as the average signal level increases."

For at least the above reasons, the cited combinations of references do not teach or suggest the Applicants' claimed invention, in which an image/picture signal is reproduced such that the maximum output brightness becomes smaller as the average signal level increases.

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It is believed that the claims are now in condition for allowance. However, if there are any outstanding issues, the Examiner is urged to call the Applicants' representative at the telephone number listed below.

Applicants believe that additional fees are not required for consideration of the within response. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, the Commissioner is hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,

EDWARDS & ANGELL, LLP

Date: November 5, 2004

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